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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,227	12/14/2001	Cullen E. Bash	10005107-2	3728

7590 01/20/2004

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EXAMINER

THOMPSON, GREGORY D

ART UNIT PAPER NUMBER

2835

DATE MAILED: 01/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/023,227	BASH ET AL.	
	Examiner	Art Unit	
	Gregory D Thompson	2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12 and 15-20 is/are allowed.
- 6) ☒ Claim(s) 1,2,6,11,13 and 14 is/are rejected.
- 7) ☒ Claim(s) 3-5,7-10 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

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1. The declaration filed on 10/06/2003 under 37 CFR 1.131 is sufficient to overcome the Koenen '035 reference.
2. Upon further review of the pending claims new art was found and applied below.
3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 6, 11, 13-14 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Suzuki et al.

The cooling system consist of a circuit board 13 with first and second heat sources 12, first and second cold plates (bodies) 3, 5 to absorb heat from the sources 12, and the actuator would be elements 8-10 in Figs. 8-9. Regarding claim 2 the first cooled body is plate(s) 5 and second cooled body is plate 3 since plate 5 is attached to plate 3 from the language in lines 13-15 in claim 1. The actuator being elements 8-10.

Regarding claims 6, 11 the board would be the middle board 13 in Figs. 10-11 with first and second heat sources 12 on a first side of board 13 and a third heat source 12 on a second side of board 13 with first and second actuators 8-10 configured to actuate the first, second cooling apparatuses 3(5) into conforming thermal contact with the first, second and third heat sources 12, respectively.

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Regarding claim 13, elements 8-10 would retractably actuate the plates toward and away from the board.

Regarding claim 14, retractably actuating the actuator 8-9 thus carrying (moving) the cold plate 3(5) would cause the plate 3(5) to move into conforming thermal contact with the first and second heat sources 12, respectively on board 13.

4. Claims 3-5, 7-10, 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The cited art does not teach nor suggest the claim subject matter of the actuator being a support compliantly mounted to the cooling bodies, cold plate composed of compliant material, cold plate defining a non-planar surface to conform to the height of the first and second sources, second cooling apparatus comprises a third cooled body, third cooled body compliantly mounted on a second support to just point out a few structural features with respect to claims 3-5, 7-10, 19 not found or taught in the prior art.

5. Claims 12, 15-20 are allowed.

Claim 6 is allowable for reason set forth in previous action.

Claims 12, 15-20 allowable for the cited art does not teach or suggest the claim structure of the means for actuating is configured to actuate the first cooled body (plate) into conforming thermal contact with the first heat source and the means for actuating is further configured to

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actuate the second cooled body (plate) into conforming thermal contact with the second heat source with respect to claims 12, 15, 16, respectively.

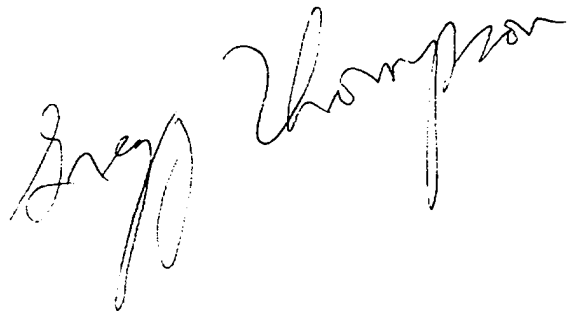
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Thompson whose telephone number is 308-2249. The examiner can normally be reached on Mon-Thurs from 6:00Am to 4:30Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg, can be reached on (703) 308-4215. The fax phone number for the organization where this application or proceeding is assigned is 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-1782.

Thompson/ek

12/30/03

A handwritten signature in black ink that reads "Greg Thompson". The signature is written in a cursive, flowing style. The first name "Greg" is written with a large, looped 'G' and a trailing 'y'. The last name "Thompson" is written with a large, looped 'T' and a trailing 'n'.